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ORIGINAL ARTICLES.

Broncho-Pneumonia.

BY THEODORE W. PEERS. PH.B., M.D., TOPEKA.

Professor of Diseases of Children, Kansas Medical College.

Read at the February meeting of the Topeka Academy of Medicine and Surgery.

This disease has the good or bad fortune (whichever it is) to have a number of names: capillary bronchitis, catarrhal pneumonia, lobular pneumonia, and broncho-pneumonia. I have decided to call it broncho-pneumonia because that seems to me to indicate most clearly the pathology of the disease.

It is a disease characterized by an inflammation of the terminal bronchi and of the alveoli. It may occur at any age, but is most common and dangerous during the first five years. The formation of the lungs during this period of life, and especially the first three years, is particularly conducive to broncho-pneumonia.

It is almost always preceded by a bronchitis, and is usually a sequella or associated with measles, scarlet fever, pertusis and diphtheria, and is often followed by tuberculosis. It is one of the most fatal of children's diseases, but its association with other severe diseases often prevents its being named as the cause of death.

"The pathology of the disease is an inflammation affecting the walls of the terminal bronchi, which become thickened and filled with cells. The inflammatory process then extends through the walls of the bronchi into the surrounding air-vesicles as well as the terminal ones. In this way centers of consolidation are formed in different parts of the lung." The amount of lung tissue involved varies greatly. The bronchitis part of the disease usually involves a large part of both lungs, but the consolidation usually involves only a few lobules, although at times a whole lobe may be involved. Often there are a number of points of consolidation in different parts of the lung. Statistics seem to point towards the lower lobe of the right lung as the one most frequently involved, with the right and left apex about equal in claim for second place. Areas of atelectasis are frequently found in broncho-pneumonia, caused by pus or sticky mucus glueing the walls of the air cells together.

The progress of a case of broncho-pneumonia is not so regular as in lobar pneumonia. There is an irregular invasion of different parts of the lungs, and recovery is delayed or hastened according to the amount and severity of the inflammation. The disease sometimes runs into a chronic form which may persist for six or eight weeks, or even longer.

"Emphysema is not infrequent during the course of broncho-pneumonia. It is due to a diminished amount of air capacity together with the violent introduction of air into the chest caused by dyspnœa and coughing."

The symptoms of broncho-pneumonia vary greatly, owing to the great irregularity of the lung tissue involved, and the severity of the inflammation. Then, too, broncho-pneumonia is very often associated with some other disease, which plays no small part in determining the symptoms.

When the disease follows bronchitis the symptoms are more definite than after measles or pertussis. The temperature rises, the respiration is much accelerated, the pulse is rapid and the alæ nasi dilate; there

is more or less cyanosis and the cough becomes more frequent and painful. The temperature varies greatly. In an ordinary mild case it may not go above 103° F. and in a severe case it often goes high as 105° F. or even 106° F., and yet a recovery occur. As a rule the fever varies during the day. It is most often at its highest between noon and five o'clock and lowest in the morning from six to eight o'clock. This is not, however, an invariable rule, and there is at times a rise and fall several times during the twenty-four hours. When the temperature instead of remitting remains high, and steadily rises, the disease, as a rule, ends fatally. A high temperature which intermits, Dr. Rotch says, "may last for a number of days or even for weeks, without the necessary result of the grave lesions of a more chronic process."

The pulse and respiration though quickened, vary according to the severity of the disease, and according to the degree of nervous excitement. The pulse is at times very rapid from 150 to 180 or even higher. It usually varies from 130 to 160. It is regular and full at first, but later in the disease becomes weaker and sometimes irregular, and often remains rapid even after the temperature has declined. The respiration may be quickened by a high temperature but depends mostly upon the extent of the disease, and is therefore an important symptom in determining the gravity of the disease. They vary from 40 to 70 and may be even higher. The normal ratio of pulse rate to respiration rate is 3 or 3½ to 1. When in broncho-pneumonia the ratio becomes 2 to 1 or even less it is regarded as a grave symptom. The Cheyne-Stokes type of respiration is also said to be a grave symptom.

Cyanosis and dyspnœa are symptoms of broncho-pneumonia. They are apt to come and go during the disease, but the more continuous they are, and the greater their severity, the more guarded must be our prognosis.

During the early stage of the disease percussion and auscultation reveal little more than the bronchitis. After a few days, however, dullness on percussion will be found, and the greater the extent showing the amount of consolidation, the greater will be our prognosis.

Brnncho-pneumonia may exist without any signs of consolidation during the whole course of the disease, but there are usually fine, moist, localized rales which enables us to distinguish the disease from bronchitis. The consolidation is at first small in area and usually near the spine and to the back of the lungs. As the consolidation extends and becomes firmer, we get dullness on percussion and can outline the consolidation more definitely. At times when the consolidation is extensive we hear very few rales over the part, the lung being nearly silent.

In broncho-pneumonia we have both a bronchitis and pneumonia, so that over parts of the lung we get, on auscultation, the coarse rales of bronchitis, while at others we get the fine, moist rales of pneumonia.

Treatment.—The disease cannot be cut short by any means known at the present time. So nourish the child, make it as comfortable as possible and promptly use appropriate remedies in such emergencies as may arise should be the chief aim of treatment.

It is important that the room should be kept at an even temperature of 70° to 72° F., and that the room be thoroughly ventilated. If there is cyanosis or dyspnœa, it is well to have the room steamed with terpentine, tar, cinnamon or eucalyptus in the water.

If the coughing is frequent, dry and painful, poultices (flaxseed, onion, etc.) and counter irritants are indicated, but they should not be used unless clearly indicated, and poultices should not be used at all unless a competent person is there to manage them.

During the first stage when the cough is most harrassing, I apply the following:

℞ Ammonii chloride, ʒ ss.
Syr. scillæ co., ʒ ij.
Syr. Senegæ, ʒ ij.
Tinct. opii. comphoratæ, ʒ iij.
Syr. pruni. Virg. q.s., ʒ iij.

Sig. One-half teaspoonful every 1 to 3 hours, for a two year old child.

Some physicians object to the opiate and syrup, but I am sure the ill effects are much less than those which follow from a "fight" with the patient every time a dose of nasty medicine is given. The ammonia should be kept up until the child is convalescent, but the opiate discontinued as soon as the cough is easy and the patient resting. The scillæ co. as soon as the cough is loose. Iodide of potash with the ammonium chloride or carb. is often used, and with good effect at times. Broncho-pneumonia is an exhausting disease so that some stimulative drug should be used after the first few days. Brandy is particularly recommended by some physicians but my preference is for strychnia. Cactus grandiliflorus is also recommended, and tonic doses of quinine are to be used later.

Too much medication, with antipyretics, for the reduction of the fever is objectionable. We must remember that the normal range of temperature in broncho pneumonia is 101° to 104.5°. Dr. L. Emmet Holt says that the "chances of recovery are not improved by systematic offort at reduction so long as the temperature remains within these limits." When the temperature reaches 104° or over the authorities I have consulted are quite uniform in recommending the bath as the best means of reducing it. Dr. Morrill in Keatings Cyclopedia, advises a warm bath, gradually reducing the temperature to 80°. Dr. Holt recommends the cold bath or pack. My preference is with Dr. Morrill, the warm bath, as it excites the child less and reduces the temperature sufficiently. Drs. Holt and Rotch condemn the use of phenacetin, antipyrin, etc., for the reduction of fever, but say they are of use in small doses to allay nervousness and to promote sleep.

The convalescence of a child after broncho-pneumonia should be watched, and tonics and careful feeding be used until the child is well. Syr. of the iodide of iron, or lactophosphate, hypophosphites, and cod liver oil, are especially useful.

One attack seems to render the child more susceptible to another, so that great care should be taken by the mother not to expose the child to cold and damp, and to see that it is properly clothed.

In compiling this paper I have drawn freely from the following works: Keating's "Cyclopedia," Rotch's "Pediatrics," J. Lewis Smith's "Diseases of Children," Holt's "Diseases of Children," Goodhart & Star's book, andalso Carmichael's work.

DISCUSSION.

Dr. Lindsay: I am pleased to hear the subject gone over in this way. The use of whisky in this disease I think is a good remedy. I use it along with the nourishment, one-half teaspoonful with the milk, every two or three hours, especially when there is high temperature and quick pulse. As to onion and flaxseed poultices, I believe the old-fashioned cornmeal mush poultice, large enough to thoroughly cover the chest two inches thick is the best. This will relax the chest. Just as soon as it begins to cool take off and cover with warm flannel. Grease the chest with lard. A little turpentine on the flannel will improve it. Attention to bowels is an important thing. Fermentation and the production of gasses in the bowels caused by indigestion makes constant pressure on the lungs. This should be carefully guarded against by appropriate feeding and antiseptic remedies. Alcohol baths are good, especially if the body has been greased. These things seem very small, but they are very important and are things that carry the child along. I frequently make use of digitalis in cases of infantile pneumonia. Strychnia holds the heart but I think digitalis is good. We read that pneumonia is a germ disease, and that families have it run through them from one to another. I think I never have seen a family where this has been the case, and I believe that there must be an especially favorable condition in the individual.

Dr. Wallace: I am glad there are two old fogies here. The only case of infantile pneumonia I ever lost I used cotton covering instead of a good mush poultice.

Dr. Stewart: I did not hear the paper but judge that it was on pneumonia. I believe grease is a good thing but don't believe in

keeping the child so greasy; and I don't believe in mush poultices. There are epidemics of pneumonia.

Dr. McClintock: And every year there are cases of pneumonia recurring in the same house.

Dr. Peers: My subject is broncho-pneumonia.

Dr. Stewart: That will make no difference in what I was going to say. The lung of the child is different from that of the adult. In the infant we have a simple extension of the bronchi and in an inflammation of the bronchial tubes the trouble is liable to extend into the lung tissue. Any inflammation of the bronchial tubes is liable to extend into the lung. In these cases we have a germ, especially a pus forming germ. Onion poultices are soperifics and also give a lasting and permeating odor. As for drugs they should be used as stimulants. Small doses of muriate of ammonium, cubebs are useful, but nauseants such as ipecac, tartar emetic, etc., should be discarded. I do not think it is very good to give digitalis. The indications are to maintain the nutrition. Save the patient's digestion, and I do not think it necessary to keep it swathed in poultices. You can produce a stasis in the blood vessels over the lung by long continued use, and when this is accomplished no benefit can be obtained, only injury. I do not think you can improve upon a good covering of cotton covered with flannel and oiled silk. Wash the child off with soda water if it has been greased. You can find goose grease in almost any house. Vaseline is preferable to lard. Strychnia and tincture of iron are good tonics.

Dr. Storrs: Children that have had broncho-pneumonia are delicate children, and though they may seem to have fully recovered, when they enter school life and come in contact with the vitiated air of the school room they show the result of the previous disease. I have seen two cases of phthisis which I have considered to be the direct result of a broncho-pneumonia. Such children need a greater amount of fresh air.

Dr. J. C. McClintock: I want to say one word. The discussion that we have had carries me back. If you do go back, go back fifty years; then there would be some sense. It is a fact that the mortality rate is 50 per cent. greater than it was at that time. It seems to me that the difference between these results lies in this—they considered the patient's symptoms, the consolidated lung, so that the heart failed to force the blood through the lung. As a result we have the widely dilated right heart. They bled their patients and you don't dare to do that, but let two patients die when one died for them. It is time for me to stop.

Dr. Colcord: I think the doctors better turn their patients over to surgeons. Doctors have failed. In my early practice I was called to see an Irishman almost gone with pneumonia, and I promptly bled him and in five minutes he had revived and the result for me was considered renown for a time. I remember one man I was called to see. He was dying and I afterward helped lay him out. He was blistered and burnt from poultices and plasters until I believe he would have died of them if not of the disease. Statistics from Iowa show greater mortality from this than any other acute disease.

Dr. Stewart: Speaking of the matter of bleeding, I must take some exceptions to Dr. McClintock. In regard to mortality rate it is not as great as twenty-five years ago.

Dr. McClintock: I agree.

Dr. Stewart: And not as great as fifty years ago. If a patient is seen when bleeding is indicated it would be right to bleed him. We don't see our patient until that time has passed, but we have a better way than bleeding. From the present treatment they are reviving from very, very low conditions. I have seen them lie in a typhoid condition for days and then live. There is scarcely a disease in which the treatment gives more hopes. Examine the patient thoroughly and see to all excretions, the kidneys, the bowels, the skin. Elimination should be the watchword. I have bled patients that I would not now bleed. I believe that greater care in the nutrition, washing, stimulation and the watching of all indications is the proper and rational treatment.

Dr. McClintock: May I say another word? I agree with Dr. Stewart when he talks of elimination That is right, that is rational.

Dr. Stewart: I just want to say this much more. I have been called to see a patient with a temperature of 105° and the physician sitting near by giving aconite drop by drop to see the temperature go down. Whenever you do this you endanger your patient. What you should do is to lower the temperature as in typhoid fever, by bathing and look after the nutrition.

Dr. Longshore: I want to talk to Dr. Stewart I had a very sick child not long since, which I gave a very small powder of acetanilid to with the happy result of quieting the child and making a happy family. After a little I cut the powder in to and still had the quiet child and happy family.

Dr. Stewart: It would have been better to have given it to the family and not to the child.

Dr. Wallace: The impression seems to have gone out that I would soak my patients in poultices. Would have a little nutrition along with it.

Dr. Peers: I think a two inch mush poultice for a child's chest would be quite a lift. The discussion has widened out considerable. Broncho-pneumonia is pratically a disease of childhood. The symptoms and conditions of the child should be watched Broncho-pneumonia is a sequel of another disease and follows bronchitis, measles, whooping cough, etc.

A Simple but Successful Treatment of Colles' Fracture.

Medical News.

In the *Archiv fur klin. Chirurgie*, vol. liii, p. 336, the results of a simple method of treatment of Colles' fracture of the radius, as carried out in the Konigsberg Polyclinic, are given by Storp. This treatment is essentially the same as was advocated many years ago by Sir Astley Cooper, viz. the suspension of the arm by the wrist, the hand being allowed to drop sharply to the ulnar side. Storp insists that attention should be directly to the complications of a Colles' fracture, and not to the fracture of the radius. In almost any recently applied apparatus the bone unites rapidly and firmly. On the other hand, the complications, such as rents in the joint capsule, made by splinters of bone, or openings into the posterior or anterior tendon-sheaths, or injury to the triangular ligament or its attachments should be attended to. In all such cases, if the hand remain too long in splints, organization of blood clots and the formation of adhesions in joint or tendon sheath delay complete recovery, or possibly permanently disable the hand. To avoid this, the fingers are now almost universally set free, and massage applied at an early date.

Storp has treated 104 patients in this manner: A strip of rubber plaster, two and one-half inches wide, is wound around the arm just above the wrist joint. A second piece is placed exactly over the first, a fold being made in it on the radial side, which stands out far enough from the arm to allow a large hole to be made in it. Through this hole a string is passed, and the arm is held high up on the chest, the hand dropping downward toward the ulnar side.

The treatment is at first rather painful, but if the arm is kept high up venous congestion is avoided and the pain becomes much less. The plaster is removed in ten days and the hand simply placed in a sling while the patient is advised to use it carefully. In a few of Storp's cases, in which there was extensive hemorrhage, massage was employed. The average duration of treatment was three weeks, while fourteen to eighteen days sufficed in patients under twenty years of age.

The results were exceptionally good. Of the ninety-five cases in which these directions were carried out, the arms of ninety one were completely restored in appearance as well as function; in the other four the functional result was a good one, but there was a slight radial deformity in three cases, and a marked radial deformity in the fourth.

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Topeka, Kansas, Saturday, Feb. 20, 1897.

A New Form of Justice.

Another instance of the supremacy of prejudice and superstition over reason and justice appeared in the recent trial at Alma. A prejudiced court and an ignorant jury convicted a man of grave robbery, though it was not even claimed by the prosecution that there was actual or even the intention of crime. Mr. Johnson was janitor of the building in which the body was found and though was shown that there were a number of other keys than his and that the locks could easily be opened without a key, yet it was held that he was in possession of the body and therefore guilty of the crime. Those who heard the trial or who have read the evidence all agree that there was no evidence whatever to convict. Such cases as this is probably what prompted the man to say he believed God knew most everything, but he was sure He could'nt foretell from the evidence what kind of a verdict a petit jury would return. A man trusts his life in the hands of a physician with confidence, but when life or liberty is left in the hands of a court he knows it is a "toss up." Medicine is called an indifinite science while law is the application of fixed rules and principles, but there is more uniformity in the application of the science of medicine than in the rulings of the court upon our law.

A court house was once built in an Eastern city of which the people were very proud, and it was surmounted with a statue of the goddess of liberty holding in her outstretched hand a pair of golden scales. A few years afterward a facetious painter removed the scales and they have never been replaced. It is, however, a more appropriate emblem of the justice administered by the average court as it now stands.

The wrath of the people must be appeased and as Dickens has aptly expressed the ruling sentiment of the English courts, "Better hang wrong feller than no feller at all." At least there can be no other interpretation of such proceedings as the one just gone through at Alma.

The Topeka Insane Asylum.

Very unjust as well untruthful statements regarding the stading of the Topeka Insane Asylum appear to have been industriously circulated. These statements are to the effect that the institution is simply a place of detention, that little or no effort is made for the cure of the patients, and that only 11 per cent. are cured while in other institutions, especially under homeopathic treatment, 36 per cent. are cured.

The foremost homeopathic institution in the United States is the New York State Hospital at Middletown. From the examination of the reports of this institution for the four years, October 1, 1891, to Septem-

ber 30, 1895, shows that 1,234 patients were admitted and that 418 were discharged recovered, or 33.87 per cent. At the Topeka Asylum for the four years, July 1, 1892, to June 30, 1896, 851 patients were admitted and 296 discharged recovered or 34.78 per cent. Besides this, 45 patients, who at the close of the respective years were out on trial visit and appear on the report as "absent on visit," were subsequently discharged recovered, and the asylum is fairly entitled to credit for these. This will add 5.40 per cent, making a total of 40.18 per cent, of recoveries upon the admissions. This is the fairest and the proper way of computing recoveries. If the calculation be made upon the average number of patients, the per cent. will be for Middletown 10.66, for Topeka 11.48.

By way of comparison, five institutions in Massachusetts including one homeopathic, give for the last year 17.43 per cent. of recoveries on admissions or 8.31 per cent. on average number present.

Furthermore, it is charged that the expenditure at Topeka is excessive. The average annual per capita cost in thirteen institutions as shown by the last report, was $181.36. The average of five institutions, whose reports have just come in, is $178.71. The average at the Middletown Hospital for the last four years is $228.68, while the average cost at the Topeka Asylum for the last four years is $158.09.

THE anatomical law which was killed in the senate committee has been modified and again introduced. The law now provides that the friends of the deceased shall be notified and the body held twenty-four hours before being delivered to the colleges. It is probable that this law will be better received and possible that it may be passed.

TRAVELING medical quacks in the West are cheating country editors on a wholesale scale out of their pay for their puffs and printing.

MISCELLANEOUS.

Proceedings of the Topeka Academy of Medicine and Surgery.

The Academy met in the A. O. U. W. hall, February 8, 1897, at 8 p.m., with the president, Dr. Ida C. Barnes, in the chair.

Members present were: Drs. Stewart, Longshore, Wallace, Peers, Alkire, Barnes, McClintock, Magee, Storrs, Sheldon, Lindsay, Ward and Adams. Visitors Dr. L. C. Duncan and a good number of medical students.

Dr. Magee presented the name of Dr. D. E. Esterly, a graduate of the University of Pennsylvania, 1893, for membership.

Dr. Magee presented the following resolution which was adopted:

To the Committee on Public Health of the Kansas Legislature.

Resolved. That we the members of the Topeka Academy of Medicine and Surgery learning of the introduction of a resolution to reduce the appropriation for the current expenses of the State Board of Health, we, as members of the aforesaid society, do most respectfully petition you to refrain from so doing, and to allow the appropriation to remain as it now is. We ask you to do this as we believe the efficiency of the board would be crippled by lessening the appropriation.

Broncho-Pneumonia, T. W. PEERS, M.D. (For paper and discussion see page 99.)

At the request of the society, Dr. Stewart gave a verbal report of a brain injury.

"About the 8th of June, 1896, Mr. J. T. E. called at my office. He complained of some difficulty in walking and a little less use of his right than of his left side, but was not paralyzed.

"Upon examination he showed unsteady gait, could not stand without support with eyes closed, absence of tendon reflexes, loss of memory, slowness of speech, with diffi-

culty of articulation, incontinence of urine, bowels constipated and albuminuria.

"Gave history of gunshot wound of head received May 15, 1864, at the the battle of Resaca, Ga. Lay in hospital unconscious about one week, improved slowly and after some months returned to duty, but stated that he had never been as well since the injury, and as years passed he felt that his disabilities increased.

"From the date of his visit to me he failed rapidly, showing progressive degeneration of the brain, and he died January 16, 1897.

"A post mortem examination was made on the 17th. The skull had a depression on the right side near the anterior superior angle of the parietal bone. This depression could be felt through the scalp, but was more marked on removal of scalp. Dura was adherent firmly to cranium. Immediately beneath the depression in the skull was one in the brain substance, somewhat elliptical in form being two inches in the longer and one in shorter diameter. This depression was about one-fourth to one-half inches in depth, indicating absorption of brain substance in the immediate vicinity of the wound. From the region of the wound in all directions was marked softening of the brain.

"This man was rejected for pension on account of this wound."

Dr. Ward: I think the trouble has been with the men on our examining board. One can hardly understand how the man could live.

Dr. Colcord: Were there paroxysms at the time?

Dr. Stewart: There were not. He never had a convulsion. There was simply gradual imbecility with final loss of mentality.

Dr. Longshore: Was there any abnormal action of the kidneys?

Dr. Stewart: I think there was no increase in quantity.

The following committees were appointed:

Committee on Membership—J. C. McClintock, T. W. Peers, R. S. Magee.

Committee on Finance and Hall—M. B. Ward, B. D. Colcord, D. K. Longshore.

Committee on Constitution and By-Laws—S. G. Stewart, S. E. Sheldon and Agnes McKee Wallace.

Program for March 8:

Diseases of Bones—Dr. M. B. Ward.

Renal Calculi—Dr. L. H. Munn.

A Case—Dr. J. C. McClintock.

HARRIET E. ADAMS, M.D.,
Secretary.

A Few Points Relating to Aortic Regurgitation.

William L. Russell, M.D., in Albany Medical Annals

Few chronic conditions of equal gravity are so amenable to treatment as valvular diseases of the heart. When compensation is perfect, no treatment should, of course, be instituted, further than to instruct and guide the patient in the mode of life necessary to preserve it, impressing upon him especially that its greatest foes are intemperance, malnutrition, over-exertion, and mental worry. If, in addition, the first signs of failing compensation be met with appropriate measures, life and a fair degree of activity may be maintained for many years, and sometimes far into old age. Restoration from serious and even desperate conditions is likewise possible, and may be followed by years of active life. Much depends, however, upon the lesion present, and to none do the remarks just made apply less than to aortic regurgitation. This lesion may, to be sure, remain quiescent for years, but compensation fails sooner than with others, and with its failure the beginning of the end is at hand. Not only in prognosis, but in causation, symptoms, and treatment, certain peculiarities pertain to it that constitute it a special object for study. Some of these are illustrated by the following cases:

P. G., male, aged 42, a baker, born in Germany; came under observation on December 31, 1892.

He stated that he had, until his present illness, been exceptionally healthy all his life. He had no knowledge of ever having had an acute infectious disease, rheuma-

tism, or syphilis. He had worked very hard, however, and had drank beer very badly for years, thus providing conditions which seem to produce this lesion more frequently than any other of the usual causes of heart disease. His family record was excellent.

His present illness could be traced back for about nine months only. The first symptom was dyspnœa, which had gradually increased. He had lost thirty pounds in weight, and had had two or three attacks suggesting angina. The last of these occurred a few hours before he consulted me, and was accompanied by cardiac pain, faintness and sweating. It lasted four hours. His appearance was that of a robust man who had become obese. His countenance was anxious, his skin pallid, cool and moist, especially that of the hands and feet, the latter of which were slightly œdematous. His breathing was rapid and had a slight cough. His pulse was soft, relapsing, intermittent. There were marked pulsations in the brachial and larger superficial arteries; no capillary pulsation.

Physical examination of the chest revealed some dulness over the lower lobes of the lungs, and moist rales. The heart was markedly enlarged. The apex, rather rounded, could be felt in the sixth interspace at the axillary line, and the area of dulness was correspondingly increased in every direction. The diffused, heaving, tumultuous of an enlarged, dilated heart could not be mistaken when the hand was laid on the precordium. A soft, breezy, diastolic murmur was detected over the aortic orifice and along the sternum downward as far as its junction with the fourth rib. The heart sounds were enfeebled.

The urine was scanty, and contained abundant urates and a moderate amount of albumen. There were no casts. The specific gravity was 1032.

The patient was directed to stop working, and the use of alcohol; to remain in a position as near recumbent as could be assumed because of orthopnœa. To eat four small meals daily, his diet being varied, but never to consist wholly or largely of soup or other liquids, or of starchy or saccharine substances. Salines were given for three successive mornings to relieve the portal circulation. The only other medication was fluid extract of digitalis (Squibb), three minims, three times daily for five successive days, after which an interval of three days was allowed before it was begun again. At the end of three weeks there was marked improvement. The signs of congestion of lungs, liver and kidneys had disappeared. There was no longer œdema of the feet. There had been no other angina-like attack, and the heart sounds were clearer, more regular and less frequent. He felt so much better that he resumed his occupation, careful directions being given as to the avoidance of great exertion, and resting in the recumbent position at every opportunity. He was given full doses of tincture of nux vomica and iron. He complained now of little except dyspnœa, and although he lost weight, he gained in vigor and in general appearance. His dietary was made a matter of constant attention, so as to avoid digestive disturbance and distension of the stomach. Whenever dyspnœa showed a tendency to increase, digitalis was given and continued until the effect was secured. This was generally within a few days, and five minims four times daily was the largest dose required. It was discontinued as soon as possible. Salines were given occasionally and always with good effect.

During the hot weather of summer his condition became aggravated. There was orthopnœa, requiring small doses of morphine for its relief, and there were blood-stained expectoration and scanty, albuminous urine. He had attacks of palpitation, when the heart beat so rapidly as to be scarcely countable, but had little pain, and no faintness or sweating as formerly. He discontinued work for two months, and rested and exercised methodically as directed. His symptoms were now reduced to a minimum, and he resumed work under easier conditions. He required little treatment during the winter, except the general and dietary precautions already referred to. His only suffering was from dyspnœa, and he became very despondent and talked of suicide.

On March 19, 1894, while visiting a friend, he became dizzy, and noticed loss of strength in his right hand. He came home alone, but gradually grew worse. The paralysis increased, and in three days involved the whole of the right side, and he was helpless in bed. He became also slightly aphasic (motor only), but was at no time unconscious, nor even stuporous. He remained in bed or in a large chair for four months, gradually recovering the partial use of his leg, and eventually walking about laboriously. During all this time and for five months afterwards, during which he was able to walk up and down stairs and for a short distance outdoors, there were no cardiac symptoms requiring treatment. The prolonged rest had restored compensation sufficient to meet all the demands of his present easy life. His general health had deteriorated somewhat, however, and his mind had become enfeebled. During the following winter the mental worry and a little extra exertion connected with changing his residence resulted in a return of the heart symptoms in aggravated form. At no time, however, was he dropsical to any greater extent than a slight œdema of the feet and the paralyzed limbs. The old treatment was resorted to, but with little effect. The quantity of digitalis given was gradually increased until December 7, when he had an attack of syncope which lasted five minutes, and the drug was discontinued. Strophanthus was tried instead, but without effect, and the digitalis was again resorted to, the precaution being taken to keep him lying down while under its influence. He had, however, a second attack of fainting on December 29, when rising in bed, and it was found necessary to limit the amount of digitalis, and to give it at intervals only. Treatment seemed now unavailing, and, with occasional periods of slight improvement, he gradually sank, and died in March, 1895.

This case illustrates well the absence of marked dropsy, the presence of cardiac pain, and the mental disturbance; conditions most frequently seen with this lesion. The value of rest in the treatment of failing compensation was also thoroughly demonstrated, as well as the possibility, by careful management, of keeping such a patient in a condition which would allow of his supporting his family for a year after signs of failure had appeared. One of the most important features of the treatment was, of course, the use of digitalis, although it is to some extent contraindicated in this lesgion. There is danger, as was seen, of syncope from the prolonged reflux due to the lengthened diastole, but a great deal was accomplished in this case by small doses at safe intervals.

The next case is somewhat different.

M. L., female, aged 60, widow, native of United States; came under observation September 5, 1893.

She stated that she had had one attack of acute articular rheumatism twelve years before, but had otherwise always been in good health. She had, however, worked very hard as a child's nurse for years. Her habits were good, and her family history negative. She was led to seek medical advice because of dyspnœa, which had appeared nine or ten months before, and of attacks of palpitation and cardiac pain, to which she had been subject for five months. These attacks were more frequent and severe after excitement. On rising in the morning she had frequently pain in the cardiac region, the shoulder and left arm. She sometimes vomited during the attack. She was usually relieved on eating breakfast. She complained also of throbbing over her whole body, and of restlessness and irritability.

She was spare and wiry in appearance. Her face expressed anxiety, but was markedly flushed, and her eyes were bright and injected. Her veins seemed overfull, but there was no œdema. Her pulse was rapid but regular, relapsing, and the artery was tense and slightly thickened. A suggestion of thrill was perceptible in the radial, and this was pronounced in the brachial and subclavian arteries. Pulsations were visible in the same arteries and in the carotids. There was no capillary pulsation.

The lungs were found to be normal, but the heart was much enlarged. The apex

was pointed, and could be felt two and a half inches to the left of the nipple line. The heart-beat was forcible and rapid. A loud, blowing, double or steam-tug murmur could be heard most distinctly at the second interspace at the right of the sternum, and was conveyed in every direction. Above the clavicle, however, but one murmur, the systolic, could be heard. The urine was normal.

The cardiac muscle seemed to be sufficiently strong in this case, and digitalis was not indicated. In fact, one of the chief sources of discomfort was the forcible beating of the heart The arterial degeneration noted rendered it probable that the coronaries were already involved. Various remedies were tried, but with little relief, except in the case of nitroglycerine, which apparently shortened the attacks of pain, and of small doses of tincture of aconite, which relieved the throbbing to some extent. Bromides and valerian had no effect on the nervous excitement, and nothing but a small dose of morphine, occasionally, enabled her to sleep. At the end of six months there was but little change in her condition, and she was then lost sight of.

In the third case the innervation of the heart seemed to pe profoundly affected.

P. H., male, aged 27, a clerk born in Ireland; came under observation in February, 1894.

He stated that he had had one severe attack of acute articular rheumatism two years before, and, with the exception of gonorrhœa, had had no other illness. He had always been a free and steady drinker, but did not consider that he had committed any excesses. He was also a great smoker. He had been married a year. His family history was negative, except that one brother had died of tuberculosis.

He was led to seek medical advice because of dyspnœa, which had been present for two or three weeks. He had also suffered from palpitation on exertion since the attack of rheumatism.

He was spare, of neurotic type, pallid and weak looking. His extremities were cool, and his face slightly dusky. There was no œdema. His pulse was weak, soft, relapsing, and its rate a hundred and ten. There were visible pulsations in all the superficial arteries, but no capillary pulsation.

His lungs were normal, though he had a slight cough. The heart was enlarged. The apex was pointed, and could be felt in the sixth interspace one and one-half inches to the left of the nipple line. A pulsation noted in the third interspace to the left of the sternum indicated an enlarged right ventricle. A diastole murmur was detected most distinctly in the third interspace to the left of the sternum, and was conveyed downward. It obscured the second cardiac sound at the base completely.

It can hardly be said that treatment influenced this case to any extent. Digitalis was tried, but seemed to have little effect, and to cause vomiting. It was difficult to control the patient's habits, and to keep him in bed. Nourishment was given at short intervals in small quantities, and dyspnœa was in some measure controlled and sleep secured by small doses of morphine. Strychnine and strophanthus were also employed, and his portal circulation relieved by means of salines. He improved temporarily at intervals, but his heart grew more rapid and feeble, and he expectorated blood-stained sputa. Dyspnœa was not excessive, however, and there was but slight œdema of the feet and ankles. He did not seem to suffer markedly, and died on April 20 somewhat suddenly in his chair, shortly after sitting up.

These three cases are sufficiently suggestive of the peculiar features and comparative hopelessness of this lesion; of the relation of heart-strain and the use of alcohol to its causation; of these again, with the use of tobacco, to its prognosis, and of the desirability of special study directed to its causation, course and management.

REPORTS show that the cocaine habit is spreading to an alarming extent, because of the use of a proprietary catarrhal powder containing about 4 per cent. of the hyprochlorate.

Picric Acid in Burns.

The editor of the *Pacific Record* in commenting on a note on this subject in the *British Medical Journal*, where D'Arcy Power testifies to its excellence, says:

"The solution of Picric acid is made by dissolving 1½ dr. of picric acid in 3 oz. of alcohol, which is then diluted with two pints of distilled water, or, more accurately: Picric acid, 5 gme.; alcohol, 80 gme.; dissolve; add 1000 gme. of distilled water. This is a saturated solution of pricic acid.

"The clothing over the injured part should be gently removed, and the burnt or scalded portion should be cleaned as thoroughly as possible with a piece of absorbent cotton-wool soaked in the lotion. Blisters should be pricked, and the serum should be allowed to escape, care being taken not to destroy the epithelial surfaces. Strips of sterilized gauze are then soaked in the solution of picric acid, and are so applied as to cover the whole of the injured surface. A thin layer of absorbent cotton-wool is put over the gauze, and the dressing is kept in place by a light linen bandage. The moist dressing soon dries, and it may be left in place for three or four days. It must then be changed, the gauze being thoroughly moistened with the picric acid solution, for it adheres very closely to the skin. The second dressing is applied in exactly the same manner as the first, and it may be left on for a week.

"The great advantages of this method of treatment are: First, that the picric acid seems to deaden the sense of pain; and secondly, that it limits the tendency to suppuration, for it coagulates the albuminous exudations, and healing takes place under a scab consisting of epithelial cells hardened by picric acid. A smooth and supple cicatrix remains, which is as much superior to the ordinary scar from a burn as our present surgical scar is superior to that obtained by our predecessors, who allowed their wounds to granulate.

"I have used this method for more than a year in hospital practice, both amongst out-patients and in-patients, and I have every reason to be thoroughly satisfied with the results I have obtained. It is not an ideal method, for it stains the clothes and discolors the hands of the surgeon, but it is a great improvement upon anything else I know of."

A Physical Sign of the Rheumatic Diathesis.

American Medico-Surgical Bulletin.

Mr. W. F. Litchfield insists there is a sign of the rheumatic diathesis. (*Australasian Medical Gazette.*) He has observed that in persons who are predisposed to acute rheumatism the baby condition of the skin and subcutaneous tissue obtains more or less. In such cases the padding of fat that exists normally on the extensor surfaces become padded with a tense subcutaneous tissue. The face has a characteristic plump, smooth appearance, and folds take the place of creases and wrinkles.

Mr. Litchfield recommends the examination of the front of the arm and the face for the estimation of this sign of the rheumatic diathesis. If in an adult the skin cannot be freely pinched up over the biceps, and if the face has the character described above, the writer asserts that such person has a strong rheumatic tendency.

Haig maintains that a *sine qua non* for the occurrence of acute rheumatism is an excess of uric acid in the blood. Further, he has established to his own satisfaction a direct relationship between the amount of uric acid circulating in the blood and the degree of anemia that obtains. Again, he asserts that chlorosis is caused by an excess of uric acid in the blood. He speaks of "the edematous, almost myxedematous, face," seen in chlorotic patients. The fullness of the face in chlorotics is mentioned by other writers. This tenseness of the subcutaneous tissues of the face obtains over the rest of the body, and resembles closely the baby condition already described.

If we accept the above statements, and remember that children as a class are very

subject to rheumatism, we are able to form a table that reads as follows:

Rheumatics have	Excess of uric acid circulating in their blood,	are anemic, have	tense subcutaneous tissues.
Chlorotics have		" " "	
Babies have		" " "	

The writer further adds, that if we still stick to Haig, that this table can be shortened by including rheumatics, chlorotics and babies under the one term—*those of a rheumatic diathesis*—and adds that this rheumatic tendency is the direct result of an excess of uric acid circulating in blood.

Cocaine Poisoning.

Berliner klinische Wochenschrift.

Dr. Weinrich discusses cocaine poisoning originating from the urinary passages. The symptoms are very variable, but they are mostly referable to the nervous systems. Cocaine must, therefore, be used with caution in neurotic individuals. The symptoms may consist of stupor, vertigo, headache and these may end in collapse with severe precordial anxiety. Clonic and tonic spasms are noted, which may produce sleeplessness and restlessness in some people and unconsciousness in others. Mental excitement and a mild degree of mental aberration may be observed. Paralysis, tremor, slight loss of co-ordination may also be noted among the motor symptoms. If respiratory difficulty, cyanosis, loss of consciousness supervene, the prognosis becomes very serious. The unfavorable action of cocaine on the heart rarely becomes threatening, the respiratory symptoms being most significant. A feeling of suffocation with irregular stertorous breathing may arise, and eventually Cheyne-Stokes breathing. Death may result from respiratory paralysis. Idiosyncrasy to cocaine is sometimes very marked, so that the size of the dose may be almost without perceptible influence on the intoxication symptoms produced. The author records two cases of cocaine poisoning, the first he had seen among several thousand of bladder cases which had been cocainized. In comparing experiments on animals with observations on man, it is proved that cocaine can be absorbed from the bladder, but the absorption is so slight as to be practically without significance. With increased dexterity in the use of the cystoscope perhaps weaker solutions of the cocaine can be employed or no local anæsthetic used at all. Cardiac and vascular diseases, pernicious anæmia, are contraindications to its use. The horizontal position should be adopted when it is used. Chloroform may be given when spasms arise, but the chief remedy against cocaine poisoning is artificial respiration. The proposal of Gauchier to add nitro-glycerin (coc. mur., Merck, 0.2; aq. dest., 10; sol. nitroglyc., 1 per cent. gtt. x.) is worth bearing in mind.

Effects of Atropine on Respiration.

British Medical Journal.

Unverricht (*Berliner klin. Woch.*) draws attention to the harmful effects of atropine upon the respiration. He observes that the results of treatment by antagonists, such as morphine poisoning by atropine, have been only moderate. It is incorrect to assume that the respiration is improved because it becomes more rapid. The author's investigations have shown that there is no antagonism between morphine and atropine as far as the respiration is concerned. Atropine can produce Cheyne-Strokes breathing, and an agent which can call forth this phenomenon cannot be looked upon as a respiratory stimulant. Both morphine and atropine can produce in man breathing of the Cheyene-Strokes type. Orlowski has made abundant experiments in the author's laboratory upon the action of atropine on the respiratory centres. Dogs can bear doses of atropine which the human subject can not. From the experiments it is shown that after the first injection of atropine the volume of the breathing is diminished, and that a further diminution is noted after a second injection. Eventually the volume may be increased just before the general convulsions show the exhaustion of the nervous centres. Thus this increase is a manifestation occurring shortly before

death. The frequency of the respiration showed generally a striking constancy. When increase in the volume of breathing occurs, this can only be due fo alternation in the depth of the breathing.

The author then relates his investigations into three cases of atropine poisoning. All three cases recovered, and the only symptom which caused any anxiety was the severe disturbance of the mechanism of respiration. These cases show how little atropine can be looked upon as a respiratory stimulant. In one case one centigramme of atropine sufficed to produce severe respiratory difficulty. The objection that smaller doses, of two to four milligrammes, act favorably on the respiratory centres, is theoretical and not proved. The author refers to recorded cases of atropine poisoning in which severe respiratory disturbance has been produced. He concludes that atropine is not a respiratory stimulant, that even in small doses it produces an unfavorable action on the respiratory centres, and that in severe cases of morphine poisoning it is not to be recommended.

Alleviation of Pain in Labor.

Medical Press.

At the Pirogoff Congress in Cracow Hr. Bukoemski read a paper on the alleviation of pain in normal labor. After careful consideration he concluded that alleviating remedies did not retard labor; they never did harm and were sometimes of great service. By the toxodynamometer (ether forty-five cases, and chloroform eight cases), he determined that when ether was used the pulse and respiration were unchanged. The labor was shortened, albumen was never seen in the urine, the uterine contractions were more powerful, and involution was improved. Ether was a reliable and non-dangerous drug that did not require accurate dosage. Chloroform rather retarded labor, but was not injurious to either mother or child. Ether deserved the preference. Both were good and reliable.

Hr. Sawitzki had obtained good results from antipyrine, of which he gave ten grains along with fifteen to twenty-five drops of tr. opii in enema, and repeated in from two to six hours.

Hr. Dobronrawow purposed a collective inquiry into the alleviation of pain during labor. An inquiry of that kind was being carried on in Russia, and the report would be submitted to the Twelfth International Congress of Medicine in Moscow. The proposal was accepted by the Congress.

Amenorrhea.

Dr. C. C. Abernathy writes: "I placed sample bottle of Dioviburnia (Dios) in the hands of a young lady who had been suffering from amenorrhea for six months, with instructions to use it and report result. At the expiration of two months she wrote me, 'You can safely recommend Dioviburnia, it has entirely cured me.' Encouraged by this gratifying result I procured through our druggist a dozen bottles and have used them all, and more in the treatment of dysmenorrhea, menorrhagia and leucorrhea, in all of which there is generally congestion of the womb and ovaries and I am pleased to say it has acted well in every case. I shall continue to use it."

THE New York Board of Health has decided to make it obligatory upon physicans to report cases of tuberculosis. The information is for statistical purposes only, and the patients will not be isolated or molested in any way, as was erroneously reported at first.

THE Ohio Medical College, by uniting with the University of Cincinnati, is in trouble. It is expected that the law will compel them to graduate colored men, although their policy has always been against this, because of the large number of Southern students they have.